Specimens of extinct and threatened birds in the collections of the National Museum of Natural History in Sofia, Bulgaria

by Zlatozar Boev

Introduction

Over the last five decades a series of specimen catalogues of extinct and rare birds in museum collections has been published. For Europe, such papers were made available by the natural history museums in, e.g., Berlin (Stresemann 1954), Frankfurt am Main (Mertens & Steinbacher 1955), Paris (Jouanin 1962), Exeter (Howes 1969), Dresden (Eck 1970), Cambridge (Benson 1972), Moscow (Neufeldt 1978, Tomkovich & Barisheva 1987), Liverpool (Fisher 1981), Milan, Genoa and Florence (Violani et al. 1984), Saint Petersburg (Sokolov & Il'yashenko 1987), Tring (Knox & Walters 1994), and Lviv (Tsaryk 2000). Surveys of this kind are useful to outline the whereabouts of rarities collected in the past throughout the world (Williams 1960). Here such a catalogue is presented for the National Museum of Natural History in Sofia (NMNHS) in Bulgaria.

The NMNHS was founded in 1889 by King Ferdinand I of Bulgaria. Its bird collections were gradually built up by regular acquisition of local birds and zoo specimens. Also, some larger collections were obtained, notably those of Amede Alleon (1838–1904) from south-east Europe (including c.900 mounted specimens), Emil Holub (1847–1903) from South Africa (c.300 mounted specimens), E. C. Stuart Baker (1864–1944) from India and South-east Asia (152 mounted specimens), and Pavel Patev (1889–1950) from Bulgaria (over 9,000 specimens, mostly preserved as study skins) (Boev 1991). The oldest bird in the collection is an adult male Channel-billed Toucan *Ramphastos vitellinus* shot in Brazil in 1860. At present, the collection holds over 12,000 registered skins and mounts of birds, plus over 1,300 partial or complete avian skeletons (Boev 1993). Some pre-1950 mounts are also present but are not yet catalogued.

A catalogue of the bird collections of NMNHS was published over 90 years ago (Anon. 1907). At the time this was a complete inventory, but considerable changes have since occurred, largely owing to important acquisitions, but also because a part of the collection was lost to fire in March 1944. Recent overviews of the bird contents of NMNHS involved only parts of the collection, e.g. catalogues of all parrots Psittaciformes (Boev 1990) and of the Stuart Baker material (Boev 1997a).

The present list provides data on the specimens of those species in NMNHS listed in BirdLife International (1999) and on Appendix I of the Convention on International Trade in Endangered Species (CITES) (species listed on this appendix are not necessarily threatened in the formal sense, but are regarded as highly vulnerable to international trade and thus have the equivalence of a threatened species under international law). All specimens are prepared as mounted birds or study skins.

Material and methods

Systematics, and categories of the conservation status and CITES listing, follow del Hoyo *et al.* (1992, 1994, 1996, 1997, 1999, 2000, 2002), with updated conservation status based on BirdLife International (2000) (where species have been downlisted since the completion of this review in 1999, this is noted but the entry is retained). To facilitate comparison of species and the location of collecting site, modernised species names and locality names are used (rather than those attaching to the specimen itself), the latter according the most recent *Times atlas* or (when not in the latter) with an indication of the nearest larger city. Square brackets around place names indicate either (a) the former name of the locality as given on the original specimen label, or (b) a known origin (e.g. New Zealand) or a known local provenance (e.g. a zoo) of the specimen in the absence of other data, or (c) extra information that helps fix the given locality.

Each entry begins with the catalogue number. Ad = Adult, Juv = Juvenile, Subad = Subadult. 'Sofía Zoo' is the Royal Zoological Gardens, Sofía. N = northern, S = southern, E = eastern, W = western, C = central. Coll. = collected by; don. = donated by.

In cases where specimens were in sufficiently good condition, (usually) six standard measurements were taken: L = body length from the tip of the upper mandible to the tip of the longest tail feathers (uppertail-coverts in males of Pavo); A = wing length from the ulnar-carpometacarpal joint to the tip of the longest primary feather; C = tail length from the pygostyle (or pygostyle area) to the tip of the longest tail feathers; R = bill length (culmen length) from the middle of the front edge of the cere to the tip of the upper jaw, i.e. the bare horny part; T = tarsus length from the joint between the third toe and the tarsometatarsal bone to the tibiotarsal-tarsometatarsal joint, measured on the frontal surface; D = third toe length with the claw from the proximal joint of the first phalanx of the third toe to the tip of the claw. The measurements were taken in millimetres with calipers and a thin metric ruler.

List of species

APTERYGIDAE

Little Spotted Kiwi Apteryx owenii. Vulnerable. One:

• 525 Ad [New Zealand]. L 505, A-, C-, R 64.8, T 49, D 50.6.

SPHENISCIDAE

Jackass Penguin Spheniscus demersus. Vulnerable. Three, all from zoos:

- 195 Ad, bought alive on 29 May 1936 in Hamburg, died in Sofia Zoo on 10 April 1937. L 600, A 165, C 60, R 55.5, T 35, D 71.
 - 196 Subad female [Plovdiv Zoo].
- 223 Ad male, died in Sofia Zoo in May 1974. L 635, A 196, C 65, R 66.7, T 48, D 87.3.

PELECANIDAE

Dalmatian Pelican Pelecanus crispus. Conservation Dependent, CITES I. Three:

- 278 Ad, no further data. L 1,710, A 690, C 300, R 380, T 111, D 128.
- 279 Juv, 26 May 1956, Srebarna Lake near Silistra (N Bulgaria), coll. M. Daneva.
- 280 Ad female, 30 March 1904, Negovan Lake near Sofia (W Bulgaria).

PHALACROCORACIDAE

Pygmy Cormorant Phalacrocorax pygmeus. Insufficiently Known (now Near Threatened). Eight:

- 2483 Ad, no further data. Bulgaria.
- 2484 Unsexed, 14 October 1908, Vranya near Sofia (W Bulgaria).
- 2485 Unsexed, 27 October 1896, Plovdiv (S-C Bulgaria).
- 2486 Ad male, 4 May 1904, Iskür River near Sofia (W Bulgaria).
- 2487 Ad male, 6 December 1896, Yarem-Bourgas (near Istanbul, Turkey), coll. A. Alleon, L 540, A 220, C 148, R 31.9, T 29.7, D 50.7.
- 2488 Ad male, 5 September 1898, Iskür River.
- 2489 Ad male, 27 November 1892, Yarem-Bourgas, coll. A. Alleon, L 560, A 208, C 165, R 28.7, T 36, D 57.5.
- 5183 Subad, January 1995, Durankulak Lake (NE Bulgaria). L 570, A 210, C 152, R 28.7, T 37, D 60.

THRESKIORNITHIDAE

Northern Bald Ibis Geronticus eremita. Critically Endangered. CITES I. Two, both from Sofia Zoo and probably originating from one of the Syrian colonies:

- 2147 Ad male, died 16 July 1911. L 724, A 363, C 224, R 137.2, T 71.5, D 65.3.
- 2148 Ad female, died 30 August 1911. L 705, A 367, C 173, R 136.8, T 68, D 63.9.

ANATIDAE

Lesser White-fronted Goose Anser erythropus. Vulnerable. Two:

- 106 Ad female, 22 March 1902, Negovan Marsh near Sofia (W Bulgaria), coll. L. Siklunov. L 530, A 373, C 123, R 29.6, T 53, D 58.3.
- 4624 Ad male, 15 March 1932, Musachevo [near Sofia], coll. V. Damvanov.

Red-breasted Goose Branta ruficollis. Vulnerable. Two:

- 5238 Ad male, January 1997, Durankulak Lake (NE Bulgaria), coll. P. Dimitrov. L 625, A 368, C 128, R 24.5, T 52, D 52.7.
- 5170 Ad, December 1993, Durankulak Lake, coll. P. Dimitrov.

Ferruginous Duck Aythya nyroca. Vulnerable (in Collar et al. 1994), now Near Threatened. One:

 2680 Ad male, 10 January 1896, Makriköy (10 km WSW of C Istanbul, Turkey). coll. A. Alleon. L -, A 189, C 90, R 43.6, T 32.1, D 57.2.

White-headed Duck Oxvura leucocephala. Endangered. Thirteen:

- 73 Juy, no further data.
- 78, 79 & 2717 Male, female, and male, 9 March 1890, Burgas (E Bulgaria).

- 80 Unsexed, 1893, Pazardzhik (S-C Bulgaria).
- · 2710 No data.
- 2711 Ad female, March 1882, Constanta (E Romania), coll. A. Alleon.
- 2712 & 2714 Females, 'Mediterranean', coll. A. Alleon.
- 2713 & 2715 Juv and ad male, April 1883, Constanta, coll. A. Alleon.
- 2716 Female, 'Mediterranean', coll. A. Alleon. L 427, A 60, C 82, R 41.7, T 43.0, D 65.
- 5154 15 January 1993, Poda near Burgas, coll. P. Dimitrov.

CATHARTIDAE

Californian Condor Gymnogyps californianus. Critically Endangered. CITES I. Two:

- 687 Ad female, 10 June 1902, Arroyo Grande (California, USA), coll. Arthur Wilcox.
- [without catalogue number] Ad male. L 1,260, A 818, C 465, R 39, T 129, D 145.

Andean Condor Vultur gryphus. CITES I. One:

688 Ad male. L 1,315, A 835, C 375, R 44, T 127, D 152.

ACCIPITRIDAE

Cinereous (Black) Vulture Aegypius monachus. Vulnerable (now Near Threatened). Four:

- 699 Ad, no further data. L 1,122, A 825, C 389, R 62, T 135, D 108.
- 700 Ad male, January 1893, Istanbul (Turkey), coll. A. Alleon.
- 2940 Juv, May 1881, Dobrogea (E Romania), coll. A. Alleon.
- 2946 Juv, December 1892, Istanbul, coll. A. Alleon.

White-tailed Sea Eagle *Haliaeetus albicilla*. Vulnerable (now Near Threatened). CITES I. Eight:

- 506 Ad female, 29 January 1897, Demirci (20 km N of C Istanbul, Turkey), coll. A. Alleon.
- 507 Juv female, Burgas, died in Sofia Zoo 2 February 1897.
- 508 Ad male, died in Sofia Zoo 17 August 1893. L 820, A 520, C 250, R 51.8, T 90, D 120.
- 2920 Juv male, 7 December 1898, no locality, coll. A. Alleon.
- 2921 Ad male, 11 February 1894, San Stefano (15km WSW of C Istanbul, Turkey), coll A. Alleon. L 940, A 608, C 291, R 53.0, T 93, D 102.
- 2934 Ad female, 29 January 1899, Demirciköy (20 km N of C Istanbul, Turkey), coll. A. Alleon.
- 2935 Ad male, 23 December 1894, Demirciköy (as above), coll. A. Alleon.
- 2936 Juv, 7 November 1898, Demirciköy (as above), coll. A. Alleon.

Imperial Eagle Aquila heliaca. Vulnerable. CITES I. Thirty-nine:

- 500 Ad, 21 October 1890, Bulgaria.
- 501 Ad female, no further data.
- 504 Juv, 12 June 1916, Vranya near Sofia (W Bulgaria).

- 505 Juv, 18 November 1930, Sgledintsi near Sofia.
- 2837 Juv, June 1882, Rumelia [former region, = S Bulgaria].
- 2838 Juv male, 3 June 1902, Sofia.
- 2848 Ad, 19 October 1898, 'Sent George' [untraced; no further data].
- 2849 Ad female, 16 March 1894, Bosporus (Turkey), coll. A. Alleon. L 855, A 612; C 312, R 44.5, T 91, D 96.
- 2850 Ad, Bulgaria. L 950, A 640, C 303, R 44,5, T 100, D 110.
- 2851 Juv male, 28 March 1899, Makriköy (10 km WSW of C Istanbul, Turkey), coll. A. Alleon. L 850, A 597, C 305, R 41.4, T 90, D 93.
- 2813 Ad female, 20 April 1893, Yarem-Bourgas (near Istanbul, Turkey), coll. A.
 Alleon. L 883, A 626, C 293, R 41.8, T 93, D 100.
- 2910 Ad, 2 December 1892, Tsaribrod (= Dimitrovgrad in present-day Yugoslavia).
- 2918 Juv female, 3 March 1898, Makriköy (see above), coll. A. Alleon.
- 2931 & 2932 Juvs, no further data.
- 4773 Unsexed, 30 January 1895, Tarnovo-Seymen [now Simeonovgrad, SE Bulgaria], coll. Starikov.
- 4774 Juv male, died Sofia Zoo 5 July 1903.
- 4775 Juv female, 11 March 1904, Krichim (SW Bulgaria).
- · 4776 & 4777 Ad and juv, Bulgaria.
- 4778 Juv female, 25 July 1894, Bulgaria.
- 4779 & 4783 Juv female and juv male, 17 February 1902, Sofia.
- 4780 Ad female, 9 February 1902, Sofia.
- 4781 Ad female, 15 September 1894, Pancharevo (Bulgaria).
- 4782 Juv female, 1 April [year unspecified], Sofia.
- 4784 Juv, 1896, Plovdiv (S-C Bulgaria).
- 4785 Unsexed, 10 October 1911, Sofia.
- 4786 Juv male, died in Sofia Zoo on 12 April 1885.
- 4787 Juv male, 17 November 1906, Sofia.
- 4788 Juv male, 27 September 1893, Belitsa (SW Bulgaria).
- 4789 Ad male, 9 February 1895, Tarnovo [now Veliko Tarnovo, CN Bulgaria].
- 4790 Ad male, 12 June 1911, Sofia.
- 4791 & 4793 Juvs, 18 and 17 February 1929, Euxinograd [near Varna, NE Bulgaria].
- 4792 & 4794 Ad female and ad unsexed, 7 May 1898, Plovdiv.
- 4795 Ad male, 16 February 1917, Pleven district (N Bulgaria).

Greater Spotted Eagle Aquila clanga. Vulnerable. Thirteen:

- 493 Ad female, 15 November 1932, Burgas (E Bulgaria), coll. V. Yulius. L 695, A 517, C 280, R 34, T 100, D 90.
- 494 Juv female, 8 July 1904, Sofia (W Bulgaria).
- 495 Ad male, 24 April 1895, Plovdiv (S-C Bulgaria).
- 2925 Ad male, 21 April 1890, Banya near Kostenets (SW Bulgaria).

- 2926 Juv male, September 1899, Marmara (an island in the Sea of Marmara, Turkey), coll. A. Alleon.
- 2927 Ad male, 7 May 1894, Bosporus (Turkey), coll. A. Alleon. L 735, A 564, C 290, R 36.4, T 90, D 83.
- 2929 Juv, June 1882, Dobrogea (E Romania), coll. A. Alleon.
- 4759 Ad male, 17 June 1911, Krichim (SW Bulgaria).
- 4760 & 4761 Ad females, 11 April 1918 and 27 May 1907, Krichim.
- 4762 Ad female, 28 March 1894, Kumanitsa near Sofia (W Bulgaria).
- 4772 Unsexed, 1 August 1947, Samokov (SW Bulgaria).
- 5091 Ad male, died in Sofia Zoo in February 1984, coll. A. Prostov.

FALCONIDAE

Lesser Kestrel Falco naumanni. Vulnerable. Fifteen:

- 486 Ad female, Bulgaria. L 355, A 250, C 155, R 14.1, T 31, D 40.
- 487 Ad male, Plovdiv (S-C Bulgaria).
- 3059 Juv male, 26 August 1894, no locality, coll. A. Alleon.
- 3060 & 3061 Ad males, 30 March 1899 and 22 April 1895, San Stefano (15km WSW of C Istanbul, Turkey), coll. A. Alleon.
- 3062 Ad male, Bulgaria.
- 3063 Ad female, 4 August 1919, Krichim (SW Bulgaria).
- 3064 Ad female, 29 April 1890, Plovdiv (S-C Bulgaria), coll. A. Alleon.
- 3065 & 3067 Ad female and ad male, 4 April 1890, Plovdiv, coll. A. Alleon.
- 3066 Juv female, 28 September 1895, Demirci (20 km N of C Istanbul, Turkey), coll. A. Alleon.
- 3068 Juv female, 20 August 1894, Makriköy (10 km WSW of C Istanbul, Turkey), coll. A. Alleon. L 323, A 223, C 144, R 12.7, T 26.4, D 30.
- 3069 Ad female, April 1892, Makriköy (as above), coll. A. Alleon.
- 3070 & 3071 Unsexed juvs, June 1892, Rumelia (former region, = S Bulgaria), coll. A. Alleon.

Peregrine Falcon Falco peregrinus. CITES I. Eleven:

- 463 Ad male, 14 January 1894, Çekmece (20 km W of Istanbul, Turkey), coll. A. Alleon.
- 464, 3111 & 3117 Juv female and two juv males, 14 November 1898, 23 October 1898, and 8 October 1893, respectively, Makriköy (10 km WSW of C Istanbul, Turkey), coll. A. Alleon.)
- 3109 Juv female, 6 December 1897, Çekmece (see above), coll. A. Alleon. L 430, A 370, C 205, R 22.2, T 47.5, D 80.
- 3110 Ad male, 2 October 1897, Demirci (20 km N of C Istanbul, Turkey), coll.
 A. Alleon, L 465, A 318, C 170, R 19.5, T 40.7, D 69.
- 3112 Juv female, 11 August 1893, Bulgaria.
- 3113 Ad female, January 1893, Makriköy (see above), coll. A. Alleon.
- 3115 Ad male, 12 March 1901, Plovdiv (S-C Bulgaria).
- 3118 Ad female, Bulgaria.

 3121 Ad female, 14 January 1899, Makriköy (see above), coll. A. Alleon. L 440, A 378, C 178, R 23.4, T 46, D 79.

CRACIDAE

Alagoas Curassow Mitu mitu. Critically Endangered. CITES I. One:

620 Unsexed, received alive in Sofia Zoo on 20 May 1924 and died 9 February 1938. This specimen shows most but not all the characters of *Mitu mitu* as opposed to Razor-billed Curassow *M. tuberosa*. L 900, C 330, T 120, A 398, R (tip to gape) 59.6, (tip to forehead over culmen) 66 (Boev 1997b).

PHASIANIDAE

Cabot's Tragopan Tragopan caboti. Vulnerable. Two, both from Sofia Zoo:

- 607 Ad male, died 6 February 1898. L 500, A 242, C 200, R 21.4, T -, D 87.
- 3954 Ad male, died 7 February 1898.

Himalayan Monal Lophophorus impejanus. CITES I. Eight, all from Sofia Zoo:

- 621 Female, died 5 September 1897. L 600, A 285, C 188, R 34.5, T 60, D 64.
- 622 Juv female, died 3 September 1900.
- 623 Male, died 14 February 1906. L 652, A 288, C 196, R 42.2, T 69, D 69.7.
- 3890 & 3891 Ad males, died 6 October 1900 and 24 November 1901.
- 3894 Juv male, died 11 September 1897.
- 3892 & 3895 Ad male and ad female.

Siamese Fireback *Lophura diardi*. Vulnerable (now Near Threatened). Two, both from Sofia Zoo:

- 626 Ad male, died 10 April 1903. L 690, A 251, C 370, R 28.3, T 87, D 49.3.
- 627 Ad female, died 31 March 1899. L 520, A 220, C 220, R 26.1, T 75.0, D 42.

Crested Fireback *Lophura ignita*. Vulnerable (now Near Threatened). Four, all from Sofia Zoo:

• 609 Ad male sep rufa died 25 November 1898 L 670 A 205 C 260 R 34 4 T

- 609 Ad male, ssp. rufa, died 25 November 1898. L 670, A 295, C 260, R 34.4, T 109, D 58.6.
- 610 Ad female, ssp. rufa, died 4 November 1897. L 490, A 225, C 174, R 25.9, T 74, D 39.5.
- 651 Ad male, ssp. nobilis, died 17 October 1899. L 640, A 300, C 270, R 30, T 112, D 67.2.
- 653 Ad female, ssp. nobilis, died 27 January 1903. L 535, A 290, C 198, R 25, T 74, D 55.

Swinhoe's Pheasant *Lophura swinhoei*. Vulnerable (now Near Threatened). CITES I. Eight, all from Sofia Zoo:

- 614 Ad male, died 21 February 1899. L 592, A 272, C 241, R 31.4, T 81, D 60.6.
- 615 Juv female, died 1 September 1901.
- 616 Ad female, died 31 March 1908. L 550, A 242, C 250, R 24.5, T 73, D 52.
- 619 No data

 3791, 3809, 3810, 3783 Juv males, died 15 April 1898, 12 August 1901, 6 November 1899, and 18 August 1900, respectively.

Reeves's Pheasant *Syrmaticus reevesii*. Vulnerable. Thirteen, many of these from a feral population living in the woods near Krichim (SW Bulgaria, near Plovdiv):

- 595 Ad male, Krichim, 4 March 1920, shot by H M Tsar Boris III. L 1,980, A 290, C 1,610, R 31.2, T 88, D 65.4.
- 597 Ad female, 24 January 1912 [Krichim]. L 730, A 232, C 383, R 25.4, T 57, D 55.8.
- 2183 Ad male, 27 October 1909, Krichim, coll. H M Boris III.
- 2484 Ad female, 27 January 1912 [Krichim].
- 2185, 2187 & 2188 Ad males, 3 November 1914, 23 January 1914, and 17 November 1917 [Krichim].
- 2186 Ad male, 27 January 1914 [Krichim], coll. Princess Nadezhda.
- 2189, 2190 & 5189 Ad males, died in Sofia Zoo 10 October 1899, 18 June 1898 and 20 October 1994.
- 4000 Ad female, no further data.
- 4014 Ad female, died in Sofia Zoo 15 June 1898.

Elliot's Pheasant Syrmaticus ellioti. Vulnerable. CITES I. Five, all from Sofia Zoo:

- 601 Ad male, died 10 November 1899. L 760, A 236, C 432, R 29.9, T 67, D 55.3.
- 602 Ad female, died 9 May 1899. L 440, A 210, C 177, R 23, T 60, D 48.4.
- 3960 & 3965 Ad males, died 26 January 1897 and 29 October 1897.
- 3964 Ad female, died 21 March 1901.

Brown Eared-pheasant Crossoptilon mantchuricum. Vulnerable. CITES I. Three, all from Sofia Zoo:

- 650 Ad male, died March 1901. L 940, A 310, C 520, R 32.2, T 105, D 73.5.
- 3927 No data.
- 3972 Ad male, died 19 March 1901.

Cheer Pheasant Catreus wallichii. Vulnerable. CITES I. Two, both from Sofia Zoo:

- 612 Ad female, died 26 July 1899. L 762, A 230, C 445, R 21, T 75, D 51.8.
- 613 Ad male, died 30 November 1904. L 918, A 255, C 557, R 29.3, T 68, D 61.5.

Green Peafowl Pavo muticus. Vulnerable. Two, both from Sofia Zoo:

- 563 Ad male, died 13 April 1910. L 2,040, A 495, C -, R 46.4, T 155, D 103.
- 564 Ad female, died 12 December 1897.

GRUIDAE

Blue Crane Anthropoides paradisea. Vulnerable. One, from Sofia Zoo:

515 Unsexed, died 13 September 1900. L 1,320, A 518, C 545, R 72, T 222, D 82.

Red-crowned Crane Grus japonensis. Endangered. CITES I. One, from Sofia Zoo:

513 Ad male, died 18 October 1906. L 1,470, A 680, C 330, R 156, T 305, D 127.7.

RALLIDAE

Corncrake Crex crex. Vulnerable. Three:

- 208 Ad male, died in Sofia Zoo 16 August 1893.
- 209 Ad male, 18 May 1894, Çekmece (20 km W of Istanbul, Turkey), coll. A.
 Alleon. L 263, A 140, C 65, R 21.0, T 33.4, D 37.6.
- 210 Juv, Bulgaria.

OTIDIDAE

Great Bustard Otis tarda. Vulnerable. Five:

- 593 & 2497 Ad males, 10 January 1928, Euxinograd [near Varna, NE Bulgaria].
- 594 Ad male, 22 February 1940, Bozhurishte near Sofia (W Bulgaria). L -, A 632, C 265, R 42.5, T 163, D 77.
- 2496 Ad female, January 1890, Central Market of Sofia. L 915, A 513, C 280, R 38.7, T 123, D 57.5.
- 2498 Ad female, 20 January 1896, Makriköy (10 km WSW of C Istanbul, Turkey), coll. A. Alleon.

SCOLOPACIDAE

Slender-billed Curlew Numenius tenuirostris. Critically Endangered. CITES I. Six:

- 406 Ad female, 31 March 1914, Sofia (W Bulgaria).
- 407 Ad male, 24 March 1899, Mramor [near Sofia].
- 408 Ad female, December 1892, Istanbul (Turkey), coll. A. Alleon.
- 2772 Ad male, 28 March 1890, Kumanitsa near Sofia.
- 2773 Ad female, 11 September 1895, Makriköy (10 km WSW of C Istanbul, Turkey), coll. A. Alleon. L 445, A 267, C 112, R 91, T 69, D 36.7.
- 2774 Ad male, received on 26 March 1899 from somewhere in Bulgaria. L 455, A 263, C 117, R 75, T 64, D 36.5.

COLUMBIDAE

Luzon Bleeding-heart Gallicolumba luzonica. CITES I. Four, all from Sofia Zoo:

- 707 Ad male, died 30 October 1898. L 295, A 165, C 115, R 17.8, T 33.6, D 32.8.
- 708 Ad male, died 10 October 1899.
- 709 Ad female, died 5 February 1899. L 272, A 150, C 98, R 15.7, T 31.2, D 33.5.
- 710 Ad, no data.

Nicobar Pigeon Caloenas nicobarica. CITES I. Three, from Sofia Zoo:

- 773 Ad male, died 23 October 1911. L 345, A 290, C 115, R 23.8, T 45, D 34 (without claw).
- 774 Ad female, died 14 December 1898.
- 775 Juv male, died 23 September 1909. L 318, A 192, C 102, R 28.8, T 44, D 44.4.

Western Crowned Pigeon Goura cristata. Vulnerable. Two, both from Sofia Zoo:

- 736 Ad female, died 12 December 1898. L 770, A 345, C 265, R 37.0, T 92, D 68.
- 737 Ad female, died 26 September 1901. L 670, A 350, C 220, R 30.8, T 83, D 63.

CACATUIDAE

Palm Cockatoo Probosciger aterrimus. CITES I. One:

1785 Ad, ex Nehrkorn Mus. L 780, A 395, C 274, R 107.8, T 31, D 75.

Yellow-crested Cockatoo *Cacatua sulphurea*, ssp. *parvula*. Critically Endangered. One, from Sofia Zoo:

1843 Ad female [Timor], died 10 March 1895. Earlier Boev (1990) listed this specimen as C. s. occidentalis, but Timor Island is inhabited by C. s. parvula (del Hoyo et al. 1997). L 420, A 224, C 114, R 34.7, T 24, D 39.7.

Salmon-crested Cockatoo Cacatua moluccensis. Vulnerable. CITES I. One:

• 1847 Ad, no further data. L 660, A 355, C 196, R 50.2, T 32, D 68.4.

PSITTACIDAE

Swift Parrot Lathamus discolor. Endangered. One:

1893 Ad male, L 254, A 122, C 116, R 12.6, T 11.7, D 25.

Black-cheeked Lovebird Agapornis nigrigenis. Vulnerable. Three, all from Sofia Zoo:

- 1873 Ad male, died 12 July 1923. L 157, A 96, C 57, R 14.4, T 11, D 20.
- · 1874 Ad male, died 30 June 1920.
- 1875 Subad female, died 1918. L 180, A 100, C 53, R 15.3, T 11.7, D 24.

Sangihe Hanging-parrot Loriculus catamene. Endangered. Two:

- 1852 Ad male, coll. Russ. L 130, A 81.2, C 40, R 10.4, T 9, D 12.6.
- 1853 Ad female, coll. Russ. L 141, A 83, C 44, R 9.4, T 11.4, D 17.6.

Lear's Macaw Anodorhynchus leari. Critically Endangered. CITES I. One:

1783 No data (old specimen). L 800, A 413, C 360, R 76.8, T 27, D 92.

Hyacinth Macaw Anodorhynchus hyacinthinus. Endangered. CITES I. One:

 1784 Ad, bought from Hagenbeck in Hamburg by Sofia Zoo on 7 April 1937, died 30 January 1940. L 1080, A 332, C 600, R 88.8, T 45, D 105.

Golden-capped Conure Aratinga auricapilla. Vulnerable. Two:

- 1797 Ad male, died in Sofia Zoo on 31 August 1909. L 352, A 79, C 79, R 27.2, T 8, D 35.
- 1798 Ad male, no further data.

Red-spectacled Amazon Amazona pretrei. Vulnerable. One:

 5166 Ad male, Tucuman (Argentina), coll. by Carlos Berg, received from Denison (London). L 310, A 201, C 111, R 24.9, T 23, D 40.

Yellow-shouldered Amazon Amazona barbadensis. Vulnerable. CITES I. One:

• 1824 Ad, no further data (old specimen). L 389, A 203, C 138, R 30.2, T 18, D 41.

White-headed Amazon Amazona leucocephala. CITES I. Three:

- 1826 Amazona leucocephala caymanensis Ad male. L 350, A 193, C 125, R 28.6, T 23, D 50.
- 1827 Amazona leucocephala leucocephala Ad female. L 351, A 189, C 126, R 25.5, T 18, D 46.
- 5181 Amazona leucocephala caymanensis Unsexed, obtained from Expo Plovdiv, 1981. L 324, A 192, C 119, R 22.8, T 18, D 48.

Yellow-crowned Amazon Amazona oratrix. Endangered. One:

• 1825 Ad [Mexico], L 435, A 217, C 148, R 40.4, T 23, D 52.

Carolina Parakeet Conuropsis carolinensis. Extinct (Fuller 1988). One:

 1799 Ad male, died in Sofia Zoo on 21 June 1901. L 377, A 194, C 166, R 24.5, T 16.5. D 34.

Kakapo Strigops habroptilus. Critically Endangered. CITES I. One:

1833 Ad [New Zealand], bought from E. Boubée Fils (Paris). L 640, A 268, C 255, R 33.9, T 41, D 60.

TROGONIDAE

Resplendent Quetzal Pharomachrus mocinno. CITES I. Two:

- 722 Ad male, 1903, Guatemala, don. M. de Voigts-Rhetz. L 1,053, A 200, C 850, R 17.2, T -, D 34.
- 723 Ad male. L 780, A 213, C 630, R 21.4, T 17.7, D 24.7.

FRINGILLIDAE

Red Siskin Carduelis cucullata. Endangered. CITES I. One:

1921 Venezuela, died 12 July 1910 in Sofia Zoo. L 108, A 58, C 36, R 8.9, T 11.9, D 9.0.

Acknowledgement

Improvements to this paper were kindly provided by the referee, C. S. Roselaar.

References:

Anon. [= Gretzer, H.] 1907. Collections du Musée d'Histoire Naturelle de Son Altesse Royale Ferdinand I Prince de Bulgarie. Impr. de l'État, Sofía.

Benson, C. W. 1972. Skins of extinct or nearly extinct birds in Cambridge. *Bull. Brit. Orn. Cl.* 92: 59-58. BirdLife International 2000. *Threatened birds of the world*. BirdLife International, Cambridge, U.K.

Boev, Z. 1990. Parrots (Order Psittaciformes) in the collection of the National Natural History Museum Sofia. *Hist. Nat. Bulg.* 2: 3-6.

Boev, Z. 1991. [Ornithological collections of the National Museum of Natural History at the Bulgarian Academy of Sciences.] *Hist. Nat. Bulg.* 3: 37-48. (In Bulgarian, English summary).

Boev, Z. 1993. [The osteological collections and their importance for ornithological studies.] *Hist. Nat. Bulg.* 4: 3-9. (In Bulgarian, English summary).

Boev, Z. 1997a. Stuart Baker's collection of birds in the National Museum of Natural History (Sofia). Hist. Nat. Bulg. 7: 5-12.

Boev, Z. 1997b. The Alagoas (Eastern-Brazil Razor-Billed) Curassow Mitu mitu (L.)—a world rarity in the collection of the National Museum of Natural History, Sofia. Hist. Nat. Bulg. 7: 105-108.

- Collar, N. J., Crosby, M. J. & Stattersfield, A. J. 1994. Birds to watch 2: the world list of threatened birds. BirdLife International, Cambridge, U.K.
- Eck, S. 1970. Die ausgestorbenen Vögel (Bälge, Skelette, Eier) in den Sammlungen des Staatlichen Museums für Tierkunde in Dresden. Zool. Abh. Staatl. Mus. Tierkde. Dresden 30: 131-134.
- Fuller, E. 1988. Extinct birds. Facts On File Publications, New York & Oxford.
- Fisher, C. T. 1981. Specimens of extinct, endangered or rare birds in the Merseyside County Museums, Liverpool. *Bull. Brit. Orn. Cl.* 101: 276-285.
- Howes, C. A. 1969. A survey of extinct and nearly extinct birds in the Royal Albert Memorial Museum, Exeter. *Bull. Brit. Orn. Cl.* 89: 89-92.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1992. *Handbook of the birds of the world*, 1. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1994. *Handbook of the birds of the world*, 2. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1996. *Handbook of the birds of the world*, 3. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1997. Handbook of the birds of the world, 4. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1999. *Handbook of the birds of the world*, 5. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 2000. Handbook of the birds of the world, 6. Lynx Edicions, Barcelona.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 2002. Handbook of the birds of the world, 7. Lynx Edicions, Barcelona.
- Jouanin, C. 1962. Inventaire des oiseaux éteints ou en voi d'extinction conservés au Muséum de Paris. Terre et Vie 3: 257-301.
- Knox, A. G. & Walters, M. P. 1994. Extinct and endangered birds in the collections of the Natural History Museum. British Ornithologists' Union. Tring.
- Mertens, R. & Steinbacher, J. 1955. Die im Senckenberg Museum vorhandenen Arten ausgestorbener, aussterbender oder seltener Vögel. Senckenbergiana Biol. 36: 241-265.
- Neufeldt, I. A. 1978. [Extinct birds in the collection of the Zoological Institute of the Academy of Sciences of the USSR. In: Systematics and biology of rare and less known birds.] Trudy Zool. Inst. Akad. Nauk SSSR 76: 101-110. (In Russian.)
- Sokolov, E. P. & II'yashenko, V. Yu. 1987. [Birds of the Red Data Book of Russian SFSR in the collection of the Zoological Institute of the Academy of Sciences of USSR.] Pp.106-112 in [Problems of conservation of the rare animals. Materials towards the Red Data Book.] Moscow: Nauk. (In Russian.)
- Stresemann, E. 1954. Ausgestorbene und aussterbende Vogelarten, vertreten in Zoologischen Museum Berlin. Mitt. zool. Mus. Berlin 30: 38-53.
- Tomkovich, P. S. & Barisheva, I. K. 1987. [Birds of the Red Data Book of Russian SFSR in the collection of the Zoological Museum of the Moscow State University.] Pp.98-105 in [Problems of conservation of the rare animals. Materials towards the Red Data Book.] Moscow: Nauk. (In Russian.)
- Tsaryk, Y. V. (ed.) 2000. Catalogue of rare and red data book species of animals in the Zoological Museum collections—Insecta, Pisces, Amphibia, Reptilia, Aves, Theria. Lviv: Zoological Museum, Ivan Franko University.
- Violani, C., Daturi, A. & Cagnolaro, L. 1984. Uccelli estinti e rari nei musei naturalistici di Milano, Genova e Firenze. Riv. ital. Orn. 54: 105-178.
- Williams, G. R. 1960. Distribution of specimens of the Kakapo, *Strigops habroptilus* Gray, in some museums throughout the world. *Rec. Dominion Mus.* 3: 219-227.
- Address: Z. Boev, National Museum of Natural History, Bulgarian Academy of Sciences, 1, blv. Tsar Osvoboditel, 1000 Sofía, Bulgaria.